CLAIMS

1. A method of producing a carbon nanohorn assembly including:

irradiating a surface of a graphite target with pulse light to vaporize carbon vapor from said graphite target and recovering the carbon vapor to obtain a carbon nanohorn,

wherein an irradiation position of said pulse light is moved at substantially constant speed when the surface of said graphite target is irradiated with said pulse light,

a power density of said pulse light is set in a range of 5 kW/cm^2 or more and 25 kW/cm^2 or less, and

a pulse width of said pulse light is set in a range of 0.5 seconds or more and 1.25 seconds or less.

2. The method of producing a carbon nanohorn assembly as claimed in claim 1,

wherein a pause width of said pulse light is set not less than 0.25 seconds.

3. The method of producing a carbon nanohorn assembly as claimed in claim 1,

wherein a condition of irradiation with said pulse light satisfies the following expression (1):

$$0.5 \leq (\text{pulse width})/(\text{pulse width} + \text{pause width}) \leq 0.8 \quad (1)$$

4. The method of producing a carbon nanohorn assembly as claimed in any one of claims 1 to 3,

wherein the irradiation position of said pulse light is moved at a speed ranging from 0.01 mm/sec or more and 55 mm/sec or less.

5. The method of producing a carbon nanohorn assembly as claimed in any one of claims 1 to 4,

wherein a side face of a cylindrical graphite target is irradiated with said pulse light while said graphite target is rotated about a central axis.

6. The method of producing a carbon nanohorn assembly as claimed in any one of claims 1 to 5,

wherein said irradiation position is moved while an irradiation angle of said pulse light is kept substantially constant.

7. The method of producing a carbon nanohorn assembly as claimed in any one of claims 1 to 6,

wherein said irradiation position is moved such that said irradiation positions of said pulse light do not overlap one another in the surface of said graphite target.